



BOROUGH OF BOOTLE.



Annual Report

OF THE

SCHOOL MEDICAL OFFICER.

1916.

BOOTLE.

HUGH EVANS & SONS, 68 HERTFORD ROAD & 356 STANLEY ROAD, LIVERPOOL.

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COUNTY BOROUGH OF BOOTLE.

THE SCHOOL MEDICAL OFFICER'S REPORT FOR YEAR
ENDED 31st DECEMBER, 1916.

22nd March, 1917.

*To the Chairman and Members of the
Education Authority.*

LADIES AND GENTLEMEN,

I have the honour to present herewith the Ninth Annual Report on the Inspection of Schools and School Children. As a result of War Conditions this Report is briefer even than its immediate predecessor.

Dr. Taylor, the Medical Inspector of Scholars, was in France throughout the whole of 1916, and the more important parts of his work in Bootle were performed by Dr. Kate Cowe and by myself.

The routine inspections of entrants and leavers have been continued, but the intermediate age group could not be examined.

The outstanding feature of the year has been the concentration of all the School Clinics in the premises originally built for the accommodation of the administrative staff of the defunct School Board, and until lately used as a School of Art. The premises are now known as the "School Medical

Offices." The accommodation provided is most suitable for its new purposes, and a long vista of beneficent work in the rearing of healthy citizens has been opened. I have not the slightest hesitation in saying that money expended for the purpose of discovering and remedying defects and incipient disease in children, is an investment by the community, in which large dividends, in the form of increased man and woman power can be guaranteed.

I wish to take this opportunity to thank you and all those who have contributed to the success of the year's work.

I am, Ladies and Gentlemen,

Yours obediently,

W. Allen Daley.

School Medical Officer.

COUNTY BOROUGH OF BOOTLE.

Number of Children—

	Number	Accommodation	Mean No. on Rolls.	Average Attendance
Council Schools	7	7,728	7,215	6,442
Church of England Schools	3	2,407	2,455	2,142
Roman Catholic Schools	3	2,776	3,277	2,712
	<u>13</u>	<u>12,911</u>	<u>12,947</u>	<u>11,296</u>

The average attendance of children under five years of age in the Denominational Schools for the year ended 31st January, 1916, was 127. No child under four years of age is now admitted to any School, and no child under five years of age is, as a rule, admitted to Council Schools.

Cost.—I am indebted to the Borough Treasurer for the following :—

The rateable value of the Borough in 1915-1916 was £478,668.

The gross cost of Medical Inspection for the twelve months ended March 31st, 1916, was £914 4s. 6d.; the Government grant was £439 5s. 7d., hence the net cost was £474 18s. 11d.

The cost under this head per child on the school rolls was 1s. 7·6d. gross and 10·2d. net, and the cost as a decimal part of a pennyrate was ·471d. gross and ·226d. net.

It is anticipated that a grant of £457 2s. 3d. will be received in respect of the above mentioned expenditure of £914 4s. 6d.

*Groups of Children Examined at Routine Inspections :—*All the leavers and entrants have been examined, including entrants in two schools left over from 1915.

TABLE 1.—NUMBER OF CHILDREN INSPECTED, 1ST JANUARY, 1916,
TO 31ST DECEMBER, 1916.

A—"CODE"

B—Groups other than
"CODE"

Age	Entrants						Leavers				Grand Total		Special cases	Re-exam- inations
	3	4	5	6	Other ages	Total	12	13	14	Total				
	—	—	523	299	106	928	589	112	7	708	1636	Boys	544	1769
Girls	—	—	547	290	94	931	510	133	7	650	1581	Girls	665	1748
Totals	—	—	1070	589	200	1859	1099	245	14	1358	3217	Totals	1209	3517

In 1916, no children in an intermediate age group were examined; leavers formed 12.02% and entrants 16.4% of the average attendance; the total number inspected at routine examinations was 28.4% of the average attendance compared with 26.5 in 1915, and 30.1 in 1914.

Children under Five Years.—In schools other than the Council, children are admitted before reaching the age of five years, and in these cases a superficial examination or "march past" was carried out.

There were fifty-four boys examined, of whom, twenty-five had obvious defects. Forty seven girls were inspected, and in sixteen, defects were apparent.

The children with defects were placed upon the following-up registers, and they will be visited in order to ascertain whether treatment of the defects is being carried out.

On attaining the age of five years, these children will be again examined as routine cases.

Special Examinations :—The number of children who were presented for special examination was 1,209, compared with 1,200 in 1915, and 1,073 in 1914. One hundred and thirty four were presented by the teachers at school during the course of the routine inspections or re-inspections, and 1,075 were seen at the Town Hall and School Medical Offices, where the Medical Inspector's office, nursing, and clerical staff were transferred in August last.

The following table shows the number of children who were referred for examination at the Town Hall and School Medical Offices by :—

School Attendance Officers	..	..	..	..	229 or 21·3%
Teachers	..	..	..	..	325 or 30·2%
School Nurses	..	..	..	..	300 or 27·9%
Parents and others	..	..	..	..	221 or 20·5%

The Inspection Clinic is now held at the School Medical Offices from 3.30 p.m. until 5 p.m. each Thursday, and from 10 a.m. until noon each Saturday. The number of new cases seen in 1916 was 1,075, compared with 1,109 in 1915, 900 in 1914, and 546 in 1913.

Re-examinations :—3,517 re-examinations were made, compared with 2,754 in 1915 ; 2,940 were performed at the schools and 577 at the Town Hall.

Other Examinations :—Six children who had been committed to Industrial Schools were examined, also 12 bursars, 4 student teachers and 50 scholarship candidates.

Attendance of Parents :—The number of parents who attended the inspections has decreased from 59.6% in 1915 to 53.4% ; this is probably owing to the greater number who now work outside their own homes.

Objections to Examination :—In 6 instances the parents sent written objections to the examination of their children.

•*Summary of Defects* :—A general summary may now be given of the numbers examined, with their results :—The children are grouped as :—

1. Entrants.—That is, those, usually below the age of seven years who are examined soon after their first entrance to school.

2. Leavers.—That is, those aged twelve years or more.

3. Special Cases.—That is, those (not usually included in the above groups) who are presented for examination because of a more or less obvious defect.

TABLE II.—RETURN SHOWING
ROUTINE CASES.

Condition.	Entrants				Leavers.			
	Boys	Girls	Total	%	Boys	Girls	Total	%
Total Inspected	928	931	1859		708	650	1358	
Clothing { Satisfactory ...	919	926	1845	99·25	691	648	1339	98·60
{ Unsatisfactory	9	5	14	0·75	17	2	19	1·40
Footgear { Satisfactory ...	826	839	1667	89·67	537	524	1061	78·13
{ Unsatisfactory	100	92	192	10·33	171	126	297	21·87
Cleanliness of Head { Clean <i>i.e.</i> , no nits or pediculi	916	723	1639	88·17	675	442	1117	82·25
{ Nits only ...	6	201	207	11·13	29	202	231	17·01
{ Pediculi	6	7	13	0·70	4	6	10	0·74
Cleanliness of Body { Clean	847	849	1696	91·23	677	622	1299	95·66
{ Dirty	81	82	163	8·77	31	28	59	4·34
{ Pediculi pres.	69	73	142	7·63	23	27	50	3·68
Nutrition { Excellent	60	38	98	5·27	30	35	65	4·79
{ Normal.....	752	758	1510	81·23	567	527	1094	80·56
{ Below normal	116	135	251	13·50	111	88	199	14·65
{ Bad	—	—	—	—	—	—	—	—
Nose and Throat { No defect	687	752	1439	77·41	546	536	1082	79·68
{ Mouth-breathers	208	149	357	19·20	84	46	130	9·57
{ Tonsils: sl.enl'ged	95	84	179	9·63	98	82	180	13·25
{ Tonsils: much „	107	136	243	13·07	65	57	122	8·98
{ Adenoids: slight	59	35	94	5·56	41	18	59	4·34
{ Adenoids: marked	21	11	32	1·72	23	2	25	1·84
{ Other defect	40	20	70	3·77	15	7	22	1·62
External Eye Disease { No disease.....	884	872	1756	94·46	669	608	1277	94·04
{ Blepharitis	30	44	74	3·98	22	22	44	3·24
{ Conjunctivitis ...	7	8	15	0·80	17	17	34	2·50
{ Corneal opacities	7	5	12	0·65	2	4	6	0·44
{ Other disease ...	4	5	9	0·48	—	—	—	—
Ear Disease { No disease	917	899	1816	97·69	691	640	1331	98·01
{ Obstruction right	6	1	7	0·38	2	2	4	0·29
{ „ left	5	—	5	0·27	1	2	3	0·22
{ Otorrhœa right	10	17	27	1·45	10	6	16	1·18
{ „ left	4	16	20	1·08	12	5	17	1·26
{ Other disease ...	—	1	1	0·05	—	—	—	—
Teeth { Sound	189	178	367	19·74	135	127	262	19·29
{ Less than 4 decay'd	221	243	464	24·96	364	337	701	51·62
{ 4 or more decayed	518	510	1028	55·30	269	186	395	29·09
{ Sepsis	—	—	—	—	—	—	—	—
Heart and Circulation { No disease	828	839	1667	89·67	654	682	1336	98·38
{ Organic „	16	7	23	1·24	7	11	18	1·32
{ Functional „	6	10	16	0·86	5	15	20	1·47
{ Anæmia	78	76	154	8·28	45	72	117	8·62
{ Other defect	—	—	—	—	—	—	—	—
Lungs { No disease	799	799	1598	85·96	642	598	1241	91·38
{ Chronic Bronch. & Bronch. Catarrh	112	117	229	12·32	49	46	95	7·00
{ Tuberculosis	2	4	6	0·32	1	3	4	0·29
{ „ suspected	17	11	28	1·50	14	3	17	1·25
{ Other disease	18	13	31	1·67	15	9	24	1·77

CONDITION OF THE CHILDREN INSPECTED.

SPECIAL CASES.

Totals				SPECIAL CASES.			
Boys	Girls	Total	%	Boys	Girls	Total	Condition.
1636	1581	3217		544	665	1209	Total Inspected.....
1610	1574	3184	98·97	—	—	—	Satisfactory } Clothing
26	7	33	1·03	—	—	—	Unsatisfactory ... }
1365	1363	2728	84·80	—	—	—	Satisfactory } Footgear
271	218	489	15·20	—	—	—	Unsatisfactory ... }
1591	1165	2756	85·67	—	—	—	Clean i.e., no nits or pediculi } Cleanliness of Head
35	403	438	13·61	—	12	12	Nits only }
10	13	23	0·71	—	2	2	Pediculi }
1524	1471	2995	93·10	—	—	—	Clean } Cleanliness of Body
112	110	222	6·90	—	1	1	Dirty }
92	100	192	5·97	3	2	5	Pediculi present }
90	73	163	5·07	—	—	—	Excellent } Nutrition
1319	1285	2604	80·94	—	—	—	Normal }
227	223	450	13·99	6	3	9	Below normal ... }
—	—	—	—	—	—	—	Bad }
1233	1288	2521	78·36	—	—	—	No defect
292	195	487	15·14	50	42	92	Mouth breathers ... }
193	166	359	11·16	6	11	17	Tonsils: slightly enlarged }
172	193	365	11·34	35	42	77	Tonsils: much „ ... }
100	53	153	4·75	11	11	22	Adenoids: slight }
44	13	57	1·77	43	34	77	Adenoids: marked }
55	37	92	2·86	16	19	35	Other defect
1553	1480	3033	94·28	—	—	—	No disease }
52	66	118	3·67	21	25	46	Blepharitis }
24	25	49	1·52	21	36	57	Conjunctivitis ... }
9	9	18	0·56	3	9	12	Corneal Opacities }
4	5	9	0·28	4	3	7	Other Disease ... }
1608	1539	3147	97·82	—	—	—	No disease }
8	3	11	0·34	2	—	2	Obstruction right }
6	2	8	0·25	1	1	2	„ left }
20	23	43	1·34	20	12	32	Otorrhœa right }
16	21	37	1·15	17	8	25	„ left }
—	—	1	0·03	4	—	4	Other disease
324	305	629	19·55	—	—	—	Sound }
585	580	1165	30·21	2	2	4	Less than 4 decayed }
727	696	1423	44·24	4	—	4	4 or more decayed ... }
—	—	—	—	—	—	—	Sepsis
1482	1521	3003	93·34	—	—	—	No disease }
23	18	41	1·27	3	3	6	Organic disease }
11	25	36	1·12	2	2	4	Functional „ }
123	148	271	8·42	14	34	48	Anæmia }
—	—	—	—	—	—	—	Other Defect...
1442	1397	2839	88·25	—	—	—	No disease }
161	163	324	10·07	31	36	67	Chronic Bronc. & Bronc. Catarrh }
3	7	10	0·31	4	3	7	Tuberculosis }
31	14	45	1·40	14	20	34	„ suspected }
33	22	55	1·70	11	17	28	Other disease

Condition		Entrants				Leavers			
		Boys	Girls	Total	%	Boys	Girls	Total	%
Total Inspected		928	931	1859		708	650	1358	
Nervous System	No disease.....	898	903	1801	96.88	689	632	1321	97.28
	Epilepsy (Major or Minor)	1	—	1	0.05	1	2	3	0.22
	Chorea	—	—	—	—	1	1	2	0.15
	Other disease	29	28	57	3.07	17	15	32	2.36
Skin	No disease.....	850	878	1728	92.95	671	623	1294	95.29
	Ringworm: Body...	2	—	2	0.10	—	—	—	—
	Head...	5	—	5	0.27	—	—	—	—
	Impetigo	67	46	113	6.08	40	20	60	4.42
	Scabies	—	—	—	—	—	1	1	0.07
	Other disease	7	7	14	0.75	6	7	13	0.96
Rickets	No disease.....	897	911	1808	97.25	684	641	1325	97.57
	Disease present	31	20	51	2.74	24	9	33	2.43
Deformities	No deformity	899	913	1812	97.47	676	641	1317	96.54
	Deformity present	29	18	47	2.53	32	9	41	3.46
Tuberculosis Non-Pulmonary	No disease...	922	926	1848	90.40	699	647	1346	99.12
	Glandular ...	5	2	7	0.38	2	1	3	0.22
	Bones and Joints.....	1	2	3	0.16	3	2	5	0.37
	Other forms	—	1	1	0.05	4	—	4	0.30
Speech	Not defective.....	888	906	1794	96.50	694	643	1337	98.45
	Defective								
	Articulation	30	16	46	2.47	2	2	4	0.29
	Stammering	6	2	8	0.43	9	2	11	0.81
	Other defects	4	7	11	0.59	3	3	6	0.44
Mental Condition	Normal	907	922	1829	98.39	679	587	1266	93.23
	Dull or B'kward	21	9	30	1.61	28	63	91	6.70
	Mentally Defect. (all grades)	—	—	—	—	1	—	1	0.07
Vision.	6/6 each eye								
	Normal Vision)*	22	18	40	44.94	390	355	745	54.85
	Less than 6/6 but not less than 6/9 in one or both eyes	6	15	21	23.60	135	108	243	17.90
	Less than 6/9 in one or both eyes (i.e., 6/12 or less and requiring treatment)	11	17	28	31.46	183	187	370	27.25
Squint		53	55	108	5.81	41	21	62	4.57
Hearing (Whisper)									
20 feet each ear (normal hearing)		909	916	1825	98.76	690	643	1333	98.16
20 feet R.....		910	921	1831	99.05	694	646	1340	98.18
L.....		912	917	1829	98.97	696	643	1339	98.60
10 feet R.....		13	3	16	0.87	7	3	10	0.73
L.....		11	7	18	0.97	7	4	11	0.81
5 feet R.....		1	—	1	0.05	6	1	7	0.51
L.....		1	—	1	0.05	5	3	8	0.59
Other Disease or Defect	Not present	878	890	1768	95.10	693	641	1334	98.23
	Present ...	50	41	91	4.90	15	9	24	1.77

* These figures relate to those whose vision was examined.

Totals

SPECIAL CASES.

Condition

Boys	Girls	Total	%	Boys	Girls	Total	Condition
1636	1581	3217		544	665	1209	Total Inspected
1587	1535	3122	97.05	—	—	—	No disease
2	2	4	0.12	1	5	6	Epilepsy (Major or } Nervous
1	1	2	0.06	2	7	9	Minor)..... } System
46	43	89	2.77	4	6	10	Chorea
							Other disease
1521	1501	3022	93.93	—	—	—	No disease
2	—	2	0.06	21	7	28	Ringworm : Body..... } Skin
5	—	5	0.16	38	28	66	„ Head..... }
107	66	173	5.38	80	102	182	Impetigo..... }
—	1	1	0.03	10	22	32	Scabies
13	14	27	0.83	28	37	65	Other disease..... }
1581	1552	3133	97.39	—	—	—	No disease
55	29	84	2.61	1	1	2	Disease present ... } Rickets
1575	1554	3129	97.26	—	—	—	No deformity
61	27	88	2.73	2	2	4	Deformity } Deformities
							present }
1621	1572	3194	99.28	—	—	—	No disease.....
7	3	10	0.31	4	—	4	Glandular
4	4	8	0.25	2	4	6	Bones and } Tuberculosis
4	1	5	0.16	1	3	4	Joints } Non-
							Other forms ... } Pulmonary
1582	1549	3131	97.33	—	—	—	Not defective.....
32	18	50	1.55	4	1	5	Defective } Speech
15	4	19	0.59	2	1	3	articulation }
7	10	17	0.05	2	2	4	Stammering
							Other defect
1586	1509	3095	96.20	—	—	—	Normal
49	72	121	3.76	6	—	6	Dull or Backward... } Mental
1	—	1	0.03	5	1	6	Mentally Defective } Condition.
							(all grades)
412	373	1185	36.83				6/6 each eye
141	123	264	8.20				(Normal Vision)*
194	204	398	12.37				{ Less than 6/6 but not
							{ less than 6/9 in one or
							{ both eyes
							{ Less than 6/9 in one or
							{ both eyes (i.e.), 6/12 or
							{ less and requiring treat-
							{ ment
94	76	170	5.28	20	14	34	..... Squint
1599	1559	3158	98.16	—	1	1	Hearing (Whisper)
1604	1567	3171	91.57	1	2	3	20 feet each ear (normal hearing)
1608	1560	3168	98.47	—	1	1	20 feet R.....
20	6	26	0.80	5	4	9	L.....
18	11	29	0.90	5	6	11	10 feet R.....
7	1	8	0.25	—	1	1	L.....
6	3	9	0.28	—	1	1	5 feet R.....
1571	1531	3102	96.42	497	631	1128	L.....
65	50	115	3.57	39	42	81	Not present } Other Disease
							Present..... } or defect

The number with any physical defect reaches the large percentage of 87·5. The more important percentages of physical defects are 14% ill-nourished ; 15·14% mouth-breathers ; 11·3% tonsils much enlarged ; 6·5% adenoids ; 44·2% four or more carious teeth ; 1·27% organic heart disease ; 8·4% anaemia ; 1·7% tuberculosis or suspected tuberculosis ; 12·4% defective vision ; and 5·3% squint. It is to be noted that many children suffer from more than one defect.

The percentage where there was no adverse mark on the inspection schedule, either for physical defect or for uncleanness or insufficiency of clothing or footwear, was only 9·5. The percentage placed upon the following-up register indicates the number of children for whom treatment in some form should be obtained, or who should be kept under observation. The names of 67·4% of the infants, 56·9% of the senior boys and 66·9% of the senior girls were placed upon the register, the total percentage being 64·9, compared with 61·5 in 1915.

Amongst those referred for special examination were 92 children in whom no physical defect, or a trivial one only, could be found. This number is accounted for by the large number of children who were sent by the School Attendance Officers.

Vaccination had not been performed in 198 entrants, or 10·7%, and in 70 leavers, or 5·2%. The increasing tendency during recent years to neglect this means of securing protection from smallpox is shewn by these figures.

Exclusion of Sick Children.:—2,517 children were excluded from school during the year in accordance with the provision of Article 53 (b) of the Code ; 123 children were absent at the beginning of the year, who had been excluded before the end of 1915. The total number of school days lost by the excluded children who returned to school during some part of 1916 was 38,371, an average of 15·5 days for each child. Tuberculosis accounted for 3,793 days ; measles for 12,139 days ; scarlet fever for 4,614 ; and ringworm for 3,106 days. At the end of 1916, 93 excluded children were absent.

Mal-Nutrition :—The nutrition of 5% of the children was recorded as excellent, 80·9% were regarded as normal, and 14% as ill-nourished. This is a considerable increase in the number recorded as ill-nourished, but

as there is no definite standard for the diagnosis of this condition, the increase is almost certainly due to the present examiner taking a higher standard than her predecessors, though some children are ill-nourished now because their mothers are out at work all day. A large number of children have a light lunch at present, receiving their principal meal at night. Several children were found who took sandwiches with them and remained at school all day. It has been noted that many of the ill-nourished came from good homes where the income cannot be small. Only a small number of ill-nourished children receive free breakfasts at school. Many children appear to be fed at home on unsuitable food, despite the directions on leaflets which are given.

Cleanliness and Condition of the Skin :—An analysis of the records of the routine inspections shows that under the heading "cleanliness" or otherwise of the body, 93.1% of the children were recorded as "clean" and 6.9% were "dirty"; pediculi were present in 192 or 5.97%. On examining the heads, nits were seen on 6 infant boys, or 0.6% of those examined, and on 201 infant girls, or 21.6%; of the leavers 4.1% of the boys had nits in their hair, and 43% of the girls. In 1914, before the routine inspection of heads by the School Nurses was commenced, 35.5% of infant girls and 60.9% of "leaving" girls had nits in their hair.

The girls in every department were examined at intervals. The standard taken this year was higher than that of last year. Of 5,846 children examined during the latter half of the year, 1,040 or 18% were, at the first examination of the series, found to have numerous nits in their hair. Last year the percentage was 20. On the fourth examination of the series 334 or 6% of the total still remained dirty; last year 389 remained dirty out of 5,531 examined. Visits are, as far as possible, paid to the homes of this residue, but apparently nothing, save compulsory power to cleanse the heads by cutting the hair if necessary, will cause any marked improvement.

Children Act, Section 122 :—Under this section, six children only were dealt with. Four were reported from St. John's School, one from Gray Street Council School, and one from Hawthorne Road Council School. It will be evident that from some schools with a large number of dirty children, no notices were received under this section, which, owing to the cumbrous

procedure, is becoming almost a dead letter. The statutory notice requiring the child to be cleansed within twenty-four hours was served in each of the six cases. All the children were satisfactorily cleansed by their parents as the result of a single notice.

Footwear :—84.8% of the children inspected at the routine examinations wore satisfactory footwear, including 15.2% who were wearing clogs. The footwear of 13.2% was in need of repair, and 1.9% of the children were barefooted. More than three times the number who wore clogs in 1915 wore them in 1916. During the year, the School Canteen Committee distributed 1,330 pairs of clogs mainly through Clog Clubs which have been formed at many of the schools. By means of the clubs children are enabled to purchase clogs at $2/3$ per pair, which is considerably below cost price. The children readily subscribe for the clogs, every facility being given to receive odd pence brought at any time.

Clothing :—At the routine inspections 99% of the children were adequately clad. In only 33 cases was the clothing reported to be unsatisfactory. This is an indication of the "War time" prosperity in material things, of the greater number of the people in the town.

Skin Diseases :—201 cases of skin diseases, excluding ringworm, were noted at the routine examinations: these include 173 of impetigo, 7 urticaria, 3 seborrhoea and 8 of eczema.

Ringworm :—Five cases of ringworm of the scalp, and 2 of the body were seen at the routine inspections; and 94, namely, 28 of the body, and 66 of the scalp, at special examinations.

Seventeen scalp cases and one of the body were still excluded from school at the end of the year. These compare with 12 scalp cases and 2 of the body left over from 1915. Thirty specimens of hair were examined microscopically; in 11 the disease was still present. It is very desirable that arrangements should be made for the treatment of ringworm of the scalp by the modern X-ray method in order that the education of these children may not suffer so seriously as at present, when, though the best ointment treatment is applied, they are absent from school often for 6 months, sometimes for over a year. It has been found that the most satisfactory ointment treatment is the daily application of an ointment

Vision :—The percentage of leaving boys whose vision was normal was 55·1 ; the percentage of girls 54·6 ; 26% of the leaving boys and 29% of the leaving girls had defective vision of such a degree that further examination, and, if necessary, the use of suitable spectacles were recommended.

One hundred and sixteen of the routine cases were wearing spectacles at the time of examination.

The following table gives the nature of the defects found in the children who attended the Ophthalmic Clinic :—

OPHTHALMIC CLINIC.

	Discharged after appropriate treatment.				Under treatment, Dec 31st, 1916.	
Eye Disease (see page 15)	82	..	43	
Emmetropia (Normal Vision)	27	...	—	
Simple Hypermetropia (Long Sight)	..		136	..	33	
„ Hypermetropic Astigmatism	..		85	..	30	
Compound „ „	..		112	..	28	
Mixed Astigmatism	37	..	13	
Myopia (Short Sight)	29	..	8	
Advanced Myopia	5	..	—	
Simple Myopic Astigmatism	2	..	1	
Compound „ „	27	..	5	
Odd Eyes	6	..	2	
Under Observation	1	..	6	
Retinoscopy not taken	—	..	2	
Totals	549	..	171	

During the year 24 children suffering from errors of refraction discontinued attendance at the Clinic before treatment was completed ; in 4, their parents had left the district, 3 had reached the age of 14 years, and 17 refused treatment. Five others who did not live in the district attended once, and were then referred to the School Medical Officer of the area in which they resided.

The parents of three children with defective vision have refused during the year to allow their children to have glasses prescribed, or to have any further examination.

Squint and Muscular Defects :—170 cases of squint were reported at routine examinations, or 5.3% of those inspected. There were 34 amongst the special cases.

One hundred and ninety cases of internal, 5 of external, and one of alternating squint were treated at the ophthalmic clinic and are included in the table on page 16 ; for 150 of these, glasses have been obtained.

Seriously Defective Vision :—In 202 of the children who attended the Clinic, the error of refraction was over 5 dioptries (a very serious amount). In 161 of these the appropriate glasses had been obtained before the end of the year. In many of these cases normal vision cannot be attained even when spectacles are worn.

A series of leaflets on the care of defective eyes and of spectacles has been prepared by the Ophthalmic Surgeon, and saves much tedious repetition at the Clinic. In the cases of 12 children whose vision is so weak that they are unable to do "near" work without damage to their eyes, a special leaflet of instruction has been sent to the teacher as well as given to the parent, but all these children would be better in a special class.

Spectacles :—A spectacle maker attends the Clinic, and the children are measured as soon as the prescription is given. In cases where it is ascertained that the parents cannot afford to buy a pair, the Authority pays for them. During the calendar year, 164 pairs of new spectacles were provided, and three pairs were repaired. The cost was £25 17s. 11d., of which £4 7s. 6d. was recovered from the parents.

TEETH.

At the routine inspection 44·4% of the boys and 44% of the girls had four or more unsound teeth; these results being, even graver than those of last year. The School Dentist continues to perform very valuable work, but as he devotes only one half-day each week to work for the Authority, his activities have had to be limited to the 6-7 age group and during the year he has been able to attend to less than one half the children in this group. All children in the selected age group were inspected in the following schools,—Linaere, St. John's, St. Mary's and Bedford Road. Of the 445 children inspected only 7, or 1·6%, had a perfect set of teeth; but in another 55, treatment was not considered necessary. Over 40% of the children had more than eight temporary teeth decayed. The total number of appointments made was 452 (including 66 for 38 children inspected in 1915) and 357 of these were kept. The tables give a record of the work done.

DENTAL CLINIC.

INSPECTION WORK DONE DURING 1916.

	Number examined	Temporary Teeth			Permanent Teeth		
		Sound	Savable	Unsaveable	Sound	Savable	Unsaveable
Boys ..	206 ..	2,123 ..	967 ..	752 ..	552 ..	209 ..	8
Girls ..	239 ..	2,227 ..	1,016 ..	834 ..	865 ..	305 ..	17
		—	—	—	—	—	—
Totals ..	445 ..	4,350 ..	1,983 ..	1,586 ..	1,417 ..	514 ..	25

Temporary Teeth.

	Boys		Girls		Total	
	No.	Percentage.	No.	Percentage.	No.	Percentage
All sound ..	5	2·4 ..	5	2·1 ..	10	2·2
1 to 4 decayed ..	46	22·3 ..	52	21·8 ..	98	22
5 to 8 „ ..	66	32 ..	87	36·4 ..	153	34·4
More than 8 „ ..	89	43·4 ..	95	39·7 ..	184	41·3

Permanent Teeth.

	Boys		Girls		Total	
	No.	Percentage	No.	Percentage	No.	Percentage
No. permanent Teeth	51	24·7	.. 40	16·7	.. 91	20·4
All sound ..	65	31·5	.. 73	30·5	.. 138	31
1 decayed ..	34	16·5	.. 37	15·5	.. 71	15·9
2 „ ..	20	9·7	.. 29	12·1	.. 49	11·0
More than 2 decayed	36	17·4	.. 60	25·1	.. 96	21·5

TREATMENT.

EXTRACTIONS.

FILLINGS.

		Number of Children treated.	Simple.	Under local Anæsthetics.	Under Gas.	Totals.	Temporary Permanent.	
Boys ..	79 (21)	250	4 (4)	—	254 (4)	—	92 (10)	
Girls ..	121 (17)	353	1 (8)	—	354 (8)	—	176 (5)	
Totals ..	200 (38)	603	5 (12)	—	608 (12)	—	268 (15)	

The figures in brackets relate to children inspected in 1915, but treated in 1916. All the teeth extracted, except two, were temporary.

Of the 383 who required dental treatment, the parents of 10 promised to take the children for treatment to a Private Dentist. Those of 26 refused to allow any treatment, and those of 347 accepted appointments to attend the Clinic: 136 of these did not keep any appointment, and 37 discontinued treatment before it was completed. In 158 the mouths were made perfectly healthy, as were those of 21 of the 38 cases held over from 1915: 17 of the 1915 cases discontinued treatment before it was completed. The treatment of the remaining 16 cases inspected in 1916 will be completed early in 1917: the treatment of 5 was commenced in December, 1916.

Nose:—64 defects were reported at routine examinations, 61 being cases of nasal discharge.

Adenoids, Mouth-Breathers, Enlarged Tonsils:—At the routine inspections 6·5% had symptoms of adenoids, and in 1·8% these were well-marked; 15·1% were mouth-breathers. Most of the 6·5% suffering from adenoids are also included in the 15·1% who are mouth-breathers. 22·5% had enlarged tonsils. In 11·3% of the total examined, the enlargement was more than trifling.

In addition to the above, 94 cases of enlarged tonsils, 16 of acute tonsillitis, 99 of adenoids, and 92 mouth-breathers were seen at the special examinations.

The Throat Surgeon has, since August, operated one half day each month in a room in the School Medical Offices. Until then the arrangements described in my report for 1915 were in operation. During the year,

there have been 11 operating days, and 115 children have had the growths removed ; in 71 cases adenoids and enlarged tonsils were both present, in 38 adenoids only, and in 6 enlarged tonsils only. In 5 instances the children failed to keep the appointments made for them. The children are visited at home after the operation, and they attend the Inspection Clinic in 2 or 3 weeks. It was unnecessary to detain any child overnight. The benefits of the operation in most cases have been very marked.

Ear Diseases and Hearing :—At the routine inspections 9 boys and 4 girls were found to have a discharge from each ear ; 18 boys and 36 girls suffered from unilateral ear discharge. Amongst the special cases were 8 of discharge from each ear, and 41 of unilateral discharge. In most of the cases, adenoids were present. Throughout the year, the forced whisper test was used as a test of hearing. In 97.7% of the boys, and 98.6% of the girls, the hearing was normal, and a whisper could be heard at a distance of 20 feet with each ear.

Mental Condition :—Of the 1,358 leavers examined at routine inspections, the mental condition of 92 or 6.8% was adversely reported upon.

Amongst the 1,859 entrants, 30 or 1.6% were reported to be mentally dull. Amongst the special cases examined for the first time as such during 1916, 6 were regarded as dull or backward, and 6 as requiring further examination. These 6 were specially examined with a view to determining their mental capacity ; one was an idiot, one a moral imbecile, and another an epileptic, who was slightly feeble-minded ; three were merely dull or backward. The idiot is still at home, he is under school age ; the moral imbecile is now in a poor-law institution. The epileptic, now aged 14 years, has left school.

Heart and Circulation :—At the routine inspections 41 cases (or 1.27%) of organic heart disease were noted. Amongst the special cases were 6 of organic disease.

Two hundred and seventy one cases of anæmia, or 8.42%, were noted at the routine examinations. This defect was also found in 48 special cases.

Lungs :—324 (or 10.07%) of the children inspected at routine examinations were found to be suffering from bronchial catarrh or bronchitis. Mention is made of Phthisis under the heading “ Tuberculosis.”

Nervous Diseases :—95 defects were discovered at routine inspections, including 85 noted as “nervous” or “nervous tendency,” 4 cases of epilepsy, 2 of chorea, and 4 of infantile paralysis. At the special examinations 25 cases were seen, including 6 of epilepsy, 9 of chorea, and one of infantile paralysis. The teachers report an increase of “nervousness” amongst scholars particularly, they say, amongst those who attend the picturedromes most regularly.

Tuberculosis, Pulmonary :—At the routine examinations, 10 children were found to be suffering from active pulmonary tuberculosis, while 45 were provisionally classed as “doubtful.”

Of the special cases, 7 were found to be suffering from what was regarded as active tuberculosis of the lungs; there were 34 cases of doubtful tuberculosis.

Osseous :—At the routine inspections, 8 cases of osseous tuberculosis, viz., 4 of the hip joint, three of the knee, and one of a metatarsal bone were found. Amongst the special cases were 6 of osseous tuberculosis: in 3 the hip joint was involved; there was one case each of tuberculous elbow, ankle and the joint of a toe.

Glandular :—Ten cases of tuberculosis of the glands of the neck were found at the routine inspections, and four amongst the special cases.

Other Forms :—Four routine cases were suffering from tuberculous peritonitis, and one from lupus; four special cases of other forms of tuberculosis were seen; three were suffering from tuberculous peritonitis, and the fourth from what was thought to be tuberculous larynx.

In the course of the year 190 cases of tuberculosis in children of school age came under observation at the Tuberculosis Dispensary. This is 1.3% of the children of school age in the town. One hundred and four of the cases, or 0.62% of the school population, were of pulmonary disease, and 87, or 0.57% of non-pulmonary. In each form, the prevalence amongst girls was greater than amongst boys.

Twenty-five of the pulmonary cases were treated in institutions during some part of the year. 72 received dispensary treatment only, and 7 treatment from private practitioners. The non-fatal pulmonary cases comprise 64 of early disease, 25 intermediate or chronic, and 7 advanced.

Of the 87 non-pulmonary cases, 23 received institutional treatment during the year, 60 dispensary only, and 4 were treated by private practitioners.

In addition to the above-mentioned definite and notified cases of tuberculosis, there are 45 pulmonary and 14 non-pulmonary cases of suspected tuberculosis which are under observation by the Tuberculosis Officer.

Fifty-nine definite cases of pulmonary disease and 48 of non-pulmonary, together with 36 of the suspected pulmonary and all of the suspected non-pulmonary cases, were in attendance at an ordinary school in December, 1916.

Deformities :—There were 88 children suffering from deformities ; in 84 the deformity was due to rickets ; 1 was congenital in origin, and 3 were the result of infantile paralysis.

Other Defects or Diseases :—At the routine inspections, 115 children suffering from “ other ” defects were reported. Under this heading are included hernia, enuresis, tumours, abscesses, worms, goitre, etc. At the special examinations, there were 81 cases of other diseases, including 3 of mumps ; 10 chickenpox ; 1 influenza ; 4 whooping cough ; 2 measles ; and 8 rheumatism.

Deaths :—The deaths of 58 children of school age occurred during the year ; included are 8 the result of phthisis ; 4 tuberculous meningitis ; 4 other forms of tuberculosis ; 7 pneumonia ; 2 organic heart disease ; 1 scarlet fever ; 4 diphtheria ; 2 cerebro-spinal fever ; 3 nephritis ; 6 accidents and 2 rheumatic fever.

REVIEW OF ACTION TAKEN TO PREVENT THE SPREAD OF INFECTIOUS DISEASES.

The methods detailed in previous reports are still in use.

Scarlet Fever :—The number of cases notified amongst children of school age was 105. There was no excessive prevalence in any of the schools ; those with the largest numbers of cases were Salisbury Road Council School 13, St. James' 13, Gray Street Council School 11, and St. Mary's 11.

Diphtheria :—During the year 40 cases of diphtheria occurred in children of school age.

Measles :—During the year 700 cases of measles occurring in school children were brought to the notice of the School Medical Officer, compared with only 147 in 1915 and 427 in 1914.

It was necessary to close four Infants' Departments, viz :—Gray Street Council School, from March 22nd until April 10th ; Salisbury Road Council School, from April 14th until April 19th (the Easter holidays were from 19th April until 1st May) ; Linacre Council School, from May 23rd until June 13th ; and Bedford Road Council School, from May 23rd until June 13th.

The number of children absent because of measles the day before the closure at the Gray Street School was 49, the percentage attendance being 80. There were 48 children absent from Salisbury Road, 50 from Bedford Road, and 44 from the Linacre School, the percentage attendances being 75, 64 and 76. As the question of the advisability of school closure, to prevent the spread of measles, is not yet satisfactorily answered, the following figures are of interest :—

Infants' Department of		No. of cases infected 14 days prior to closure.	No. of cases infected during closure.	No. of cases infected 14 days after re-opening.
Gray Street Council School	..	28	27	8
Salisbury Road Council School	..	2	4	5
Linacre Council School	..	14	8	—
Bedford Road Council School	..	7	3	—

The date of infection was calculated as 18 days (14 for incubation and 4 for invasion) prior to the day upon which the rash appeared. Hence those in the first column *developed* the disease during the school closure. Those in the second, some during the closure, others after the reopening ; those in the third after the reopening. The figures show that at Gray

Street School 28 children who but for the closure would have developed the disease while attending school, developed it at home. During the closure 27 children were infected with measles, and the question at issue is whether more than 27 would have been infected if the School had not been closed. Taking all the schools together 51 cases were infected before the closures, and developed the disease at home. While the schools were closed, 42 children were infected in their own homes. These are the minimum figures, but it is probable that most of the cases were notified either by parents or by teachers after the reopening. From these facts, closure does not appear to have any appreciable effect in stopping the spread of the disease, but from the point of view of an Education Authority, it has the good effect that the schools cannot be blamed for the infection of the 42 children who took it during the closures, as they certainly would have been had the schools remained opened.

It was, at first, endeavoured to prevent the spread by excluding class contacts who were reported not to have had measles previously, but owing to the number of cases in which children had "measles" two or three times, this procedure was not continued. Now that notification of measles is compulsory, and when one considers the great dislocation of school work when 20 to 30% of the children are away, and the anxiety of parents lest their children should contract the disease in school, the conclusion that I have come to is that closure probably is "worth while": further than that I am not prepared to go.

Whooping Cough :—During 1916, 101 cases in school children were reported, and these, together with 48 contacts, were excluded. In 1915, there were 272 cases and 90 contacts.

Mumps :—During the year, 26 cases of mumps were reported, compared with 35 in 1915 and 298 in 1914.

Chickenpox :—There occurred amongst school children 75 cases of chickenpox, and these, together with 28 contacts, were excluded, compared with 89 cases, and 19 contacts in 1915.

The following table gives the schools from which cases, and contacts of cases of measles and other infectious diseases, were excluded.

	Measles			Chickenpox			Whooping Cough			Mumps
	Cases	Con- tacts	Total	Cases	Con- tacts	Total	Cases	Con- tacts	Total	Cases
Salisbury Road	100	53	153	7	4	11	26	13	39	6
Hawthorne Road	41	26	67	13	1	14	6	3	9	2
Linacre Lane	90	25	115	10	4	14	4	1	5	2
Bedford Road	59	23	82	8	3	11	13	10	23	1
Gray Street	125	63	188	6	5	11	6	1	7	5
St. James	63	54	117	11	7	18	10	4	14	1
St. Mary's	40	52	72	—	—	—	—	—	—	2
Christ Church	28	15	43	4	—	4	10	4	14	1
St. John's	39	25	64	4	1	5	2	1	3	—
St. Alexander's	7	4	11	—	1	1	11	8	19	—
St. Winefride's	18	18	36	2	—	2	4	2	6	—
St. James' Select	8	8	16	—	—	—	—	—	—	—
Orrell	42	31	73	3	1	4	7	—	7	6
Balliol	22	4	26	7	1	8	2	1	3	—
Various	18	3	21	—	—	—	—	—	—	—
Totals	700	384	1084	75	28	103	101	48	149	26
No. of visits & re-visits	1,140			110			199			26

The total number of visits paid to all cases of minor infectious diseases was 1,475, compared with 790 in 1915.

FOLLOWING-UP.

Re-examinations took place in 34 departments; the number re-examined in school and at the Town Hall was 3,517.

Work of School Nurses :—During the year, 4,885 visits were paid by the two nurses to the homes of children whose names appear on the following-up register, and 400 visits were made by voluntary workers. Considerable difficulty has been found, owing to their numerous other and more important duties, in providing a School Nurse to be present with the doctor throughout the Routine Inspections; the appointment of an assistant who will act as amanuensis and take part in weighing and measuring the children, and in testing their vision and hearing, is contemplated, and will free the Nurses for other work.

National Society for the Prevention of Cruelty to Children :—Thirteen cases were referred to the Society's District Inspector, and in every case he rendered valuable help. In many other cases, the threat of reporting the case to the Society was sufficient to cause the parents to give proper attention to a child.

TABLE IV.—TREATMENT OF DEFECTS OF CHILDREN DURING 1916.

Defect	No. of defects for which Treatment was considered necessary.			No. of defects for which no report is available.	No. of defects treated	Results of Treatment.			No. of defects not treated.	Percentages of defects.		
	Previous Years.	New.	Total			Remedied	Improved	Unchanged		Treated.	No Report	Not treated.
Clothing	31	17	48	—	48	7	24	17	—	100·0	—	—
Footwear	28	44	72	—	72	9	42	21	—	100·0	—	—
Cleanliness of Head	250	185	435	13	422	84	293	45	—	97·	2·9	—
Cleanliness of Body	57	3	60	—	60	10	43	7	—	100	—	—
Nutrition	693	166	859	25	834	70	538	226	—	97·1	2·9	—
Nose and Throat	837	539	1376	55	1075	212	601	262	246	78·1	3·9	17·8
External Eye Disease ...	111	135	246	6	240	66	113	61	—	97·5	2·4	—
Ear Disease	108	47	155	7	148	38	57	53	—	95·5	4·5	—
Teeth	92	441	533	4	367	200	86	81	162	68·8	0·7	30·3
Heart and Circulation ...	223	149	372	24	348	37	150	161	—	93·5	6·4	—
Lungs	336	564	900	32	868	438	246	184	—	96·4	3·5	—
Nervous System	55	9	64	—	64	10	32	22	—	100·0	—	—
Skin.....	60	664	724	—	724	580	111	33	—	100·0	—	—
Rickets	26	1	27	—	27	5	6	16	—	100·0	—	—
Deformities.....	17	—	17	—	17	3	7	7	—	100·0	—	—
Tuberculosis—												
non-pulmonary	27	16	43	2	41	4	20	17	—	95·3	4·6	—
Speech.....	59	11	70	2	68	7	24	37	—	95·3	4·6	—
Mental Condition	43	8	51	—	51	1	6	44	—	100·0	—	—
Vision and Squint.....	147	564	711	10	636	472	136	28	65	89·4	1·3	9·1
Hearing	109	28	137	4	133	64	49	20	—	97·1	2·9	—
Miscellaneous	116	133	249	12	237	66	74	97	—	95·1	4·8	—
Totals	3425	3724	7149	196	6480	2383	2658	1439	473			
Percentages				2·7	90·6	33·3	37·1	20·2	6·6	90·6	2·7	6·6

The total number of defects for which treatment was required was 7,149 compared with 5,169 in 1915, 4,145 in 1914, 4,038 in 1913, and 3,254 in 1912. The percentage cured or remedied was 33·3, compared with 33·4 in 1915, 38·9 in 1914, 32·7 in 1913, and 29·8 in 1912, while the percentage

of the total who had secured some treatment was 90.6, compared with 93.1, 83.3, 85.8 and 83.7 respectively. The decrease in the percentage treated is due to the inclusion in the table, for the first time, of a considerable number of cases of defective teeth : it was found very difficult to convince many parents of the benefits which would accrue as the result of a visit to the dentist.

The 246 untreated cases in the group "Nose and Throat" consist almost entirely of mouth-breathers where breathing exercises are not being performed as recommended. Of the 65 cases of defective vision, the 35 who are still at school will be treated at the Ophthalmic Clinic early in 1917.

The 196 defects under the heading "no report" occurred in children who were absent at the time of re-examination, and the school nurse could not get into touch with them because of their change of address or other reason ; it was later discovered that 96 of them had left school. The figures in the table include children who have left school during the year ; in that period 856 cards relating to defects in children who had left school were removed. Seven hundred and twenty two defects had been treated, 33 were cured or remedied, 472 improved, and 217 unchanged.

The table does not contain particulars of 951 defects in children examined in the last few months of the year, and who were not re-examined until 1917. Seventy children who live in Bootle and attend a Liverpool School were referred by the School Medical Officer of Liverpool, and followed up by your School Nurses. Of children who attend Bootle Schools and reside outside the district, 25 who required treatment were referred to the School Medical Officer of Liverpool, and 4 to the School Medical Officer of Lancashire.

Minor Ailments Clinic :—The table gives particulars of the cases dealt with during 1916.

Defect.	Number of children		Number of attendances		Cured.	Improved and still attending	
Ringworm of body	33	..	260	..	32	..	1
Ringworm of scalp	49	..	1,715	..	28	..	21
Impetigo Capitis ..	16	..	90	..	15	..	1
Impetigo of Face ..	102	..	662	..	102	..	—
Eczema	22	..	200	..	22	..	—
Septic toe or finger	20	..	108	..	20	..	—
Otorrhoea	57	..	1,396	..	8	..	49
Conjunctivitis ..	38	..	258	..	33	..	5
Blepharitis	13	..	86	..	12	..	1
Various	38	..	374	..	34	..	4
Totals	388	..	5,149	..	306	..	82

During 1915, 350 children made 3,470 attendances.

Blind or Partially Blind Children.:—There are now 12 partially blind children who attend an ordinary school, though they are suffering from progressive myopia, and their sight will become much worse, and may fail altogether unless they are educated suitably. There are others who have been excluded for more or less lengthy periods. Nine blind children are at Wavertree School for the Blind, Liverpool; 1 at Brunswick Road School for the Blind, Liverpool, and another at the School for the Blind, Fulwood, Preston.

Deaf and Dumb Children.:—3 children are at Oxford Street Deaf and Dumb School, Liverpool, 1 is at St. John's Deaf and Dumb School, Boston Spa, and 2 at the Roman Catholic Deaf and Dumb School, Liverpool.

Physically Defective.:—Four cases of non-pulmonary tuberculosis have been sent by the Local Sanitary Authority to the Leasowe Sanatorium, where there is a certified special school. Two are cases of tuberculous hip, one of tuberculous spine, and one of lupus.

Open Air Education :—Playground classes are held during the summer months in most of the schools, to the great advantage of the children concerned. It is desirable that even more attention should be paid to this matter. Future arrangements might with advantage be discussed with the Head Teachers.

Feeding of School Children :—A report by the Secretaries of the School Canteen Committee on the work performed during the winter session 1915-1916, has been sent to the Board of Education and circulated amongst the Committee.

There has fortunately, during the present winter, been a considerable diminution in the number of children who receive their meals at school. This is accounted for by the increased income, owing to abundance of work, of most of the families, whose children were previously on the lists.

Porridge, on two mornings each week is now provided at every school, otherwise there is no marked change in the dietary. There has also been some improvement in the conditions under which the meals are served.

Day Nursery :—A very large number of married women are now engaged in munition and other work, and it has been found that their young children are, as a rule, neglected, and do not receive that care and attention which is necessary, if they are to enter school without requiring at once medical attention. A substantial demand exists for a Day Nursery, not only for the infants of mothers who now work, but for those of mothers who would be willing to do national work if they could be sure that their children would receive proper attention while they were away.

As substantial grants will be made towards the establishment and maintenance of a Day Nursery for the infants of munition workers, it is hoped that such an establishment will shortly be opened, though it is not to be forgotten that there are many who would make use of a Day Nursery who do not make munitions of war.

The great difficulty is to find a suitable house in the neighbourhood where the nursery is required.

SUMMARY OF RECOMMENDATIONS.

The undermentioned needs are given in order of urgency :—

1. Establishment of a Day Nursery. (Page 29).
2. The appointment of someone to assist the doctor at the Routine Inspections. (Page 25).
3. Further provision of open-air teaching, e.g., by an extension of the arrangements by which classes are taken for oral work during the summer months, in the playgrounds. (Page 29).
4. Provision for dental treatment for a larger number of children. (Page 18).
5. Provision for the X-Ray treatment of ringworm. (Page 14).
6. Arrangements for the special instruction of partially sighted children. (Pages 17 and 28).

